## Iowa Department of Natural Resources Wastewater Section

## Construction Permit Application SCHEDULE O, Aeration Tanks or Basins

DATE PREPARED PROJECT IDENTITY									R USE
DELUGED								PROJECT 1	VO.
REVISED							<u> </u>	DED MIT NO	<u> </u>
							-	PERMIT N	<i>)</i> .
assification of	Process								
		k unit operati	ion)						
ongn Zoddings	(waste entering tain	-				<u>MWW</u>		<u>PHWW</u>	
BOD5, mg	71		_						
TSS, mg/l			=		<del></del>				
NH3-N, m			_						
Design Ter	npo	' F							
Aeration tank unit operation follows     Design data: First stage			and precedes						
sign data: Firs	t stage		Second stage						
			Uni	t No. 1	Unit	No. 2	Unit I	No. 3	
		ng							
	\ /								
		(laus)							
		3)							
Air Pro	vided (ft <sup>3</sup> /#BOD <sub>5</sub> )								
Oxyger	Provided (#O <sub>2</sub> /#BOD	5)							
F/M Ra	tio	<u> </u>							
	•	nt							
Sluc	ge Return: GPM								
Gallons	of Waste Sludge @	% solids							
		od							
Slud	ge Wasting: Locati	ion							
service bypass	provided?	Discha	rge to						
cold weather p	rotection provided?		Ho	W		0.17			
eration Equipm	ent: Design Air Temp	perature		_ °F to		° F			
	o Dir	mangions							
Fach	S HP Maximi	ım suhmerge	ence		inches				
Cross Section	n velocity	fns			menes				
Specify prov	risions for cross-section	al velocity o	control						
1 11		J		-					
Diffusers:									
No. of Blow	ers Each	1	CFM	I at	psi	i			
	user					N	No./Tank		
Type of Diff	C - ' ' 1				P	rovided			
Type of Diff Total CFM	or air required								
Type of Diff Total CFM ( Mechanical:									
Type of Diff Total CFM ( Mechanical: No. and type	of unit	Sama 24							#O /
Type of Diff Total CFM of Mechanical: No. and type Each	of unit HP Rated C	Capacity							#O <sub>2</sub> /hour
Type of Diff Total CFM of Mechanical: No. and type Each	e of unit HP Rated C	Capacity							
Type of Diff Total CFM of Mechanical: No. and type Each	of unit HP Rated C	Capacity							
F	REVISED  assification of lasign Loadings: Flow, MGI BOD5, mg/ TSS, mg/l NH3-N, mg Design Ten  aration tank unitation tank unitation tank unitation data: First  Specify Dimens SWD (f Freebook Effectiv Detentic Loading Air Pro Oxygen F/M Ra MLSS/I SRT (da Sludg Gallons Sludg Service bypass cold weather proportion Equipment Rotors: No. of Rotor Each Cross Section Specify prov	REVISED  assification of Process sign Loadings: (waste entering tank  Flow, MGD BOD5, mg/l TSS, mg/l NH3-N, mg/l Design Temp.  Tration tank unit operation follows sign data: First stage  Parameter Specify whether new or existin Dimensions (Length x Width) SWD (ft) Freeboard (in) Effective Volume (gal) Detention Time at AWW flow Loading (#BOD5/day/1,000 ft Air Provided (ft³/#BOD5) Oxygen Provided (#O2/#BOD F/M Ratio MLSS/MLVSS (mg/l) SRT (days)  Percer Sludge Return: GPM Gallons of Waste Sludge @ Method Sludge Wasting: Locat  Service bypass provided? Cold weather protection provided? Coration Equipment: Design Air Temp Rotors: No. of Rotors Each HP Maximum Cross Section velocity Specify provisions for cross-section	REVISED  assification of Process sign Loadings: (waste entering tank unit operat ADW Flow, MGD BOD5, mg/l TSS, mg/l NH3-N, mg/l Design Temp.	assification of Process sign Loadings: (waste entering tank unit operation)  ADW  Flow, MGD  BOD5, mg/l  TSS, mg/l  NH3-N, mg/l  Design Temp.	assification of Process sign Loadings: (waste entering tank unit operation)  ADW AWW Flow, MGD BOD5, mg/l TSS, mg/l NH3-N, mg/l Design Temp	assification of Process sign Loadings: (waste entering tank unit operation)  Flow, MGD BOD5, mg/l TSS, mg/l NH3-N, mg/l Design Temp °F  ration tank unit operation follows and precsign data: First stage Second stage  Parameter	ABSIFICATION of Process sign Loadings: (waste entering tank unit operation) ADW AWW MWW Flow, MGD BOD5, mg/l TSS, mg/l NH3-N, mg/l Design Temp.	assification of Process sign Loadings: (waste entering tank unit operation)  ADW AWW MWW  Flow, MGD BOD5, mg/l TSS, mg/l NH3-N, mg/l Design Temp. °F  ration tank unit operation follows sign data: First stage Second stage  Parameter Unit No. 1 Unit No. 2 Unit? Specify whether new or existing Dimensions (Length x Width) SWD (ft) Freeboard (in) Effective Volume (gal) Detention Time at AWW flow (hrs) Loading (#BOD5/day/1,000 ft <sup>3</sup> ) Air Provided (ft <sup>3</sup> /#BOD <sub>5</sub> ) Oxygen Provided (#O <sub>2</sub> /#BOD <sub>5</sub> ) F/M Ratio MLSS/MLVSS (mg/l) SRT (days) Percent Sludge Return: GPM Gallons of Waste Sludge @ % solids Method Sludge Wasting: Location Service bypass provided? Discharge to cold weather protection provided? How ration Equipment: Design Air Temperature °F to °F Rotors: No. of Rotors Dimensions Each HP Maximum submergence inches Cross Section velocity fps Specify provisions for cross-sectional velocity control	REVISED    PROJECT N   PERMIT NO   PERMIT

DNR form 28O (Nov 00) 542-3083